

## PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

APR 30 1999

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NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing  
(day/month/year) 21.04.99

Applicant's or agent's file reference  
28049/33270

## IMPORTANT NOTIFICATION

International application No.  
PCT/US97/09218

International filing date (day/month/year)  
27/05/1997

Priority date (day/month/year)  
22/01/1997

Applicant  
NIELSEN MEDIA RESEARCH, INC.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

## 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 28049/33270	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US97/09218	International filing date (day/month/year) 27/05/1997	Priority date (day/month/year) 22/01/1997
International Patent Classification (IPC) or national classification and IPC H04H9/00		
Applicant NIELSEN MEDIA RESEARCH, INC.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 10 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 22 sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I   <input checked="" type="checkbox"/> Basis of the report</li> <li>II   <input type="checkbox"/> Priority</li> <li>III   <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV   <input checked="" type="checkbox"/> Lack of unity of invention</li> <li>V   <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI   <input type="checkbox"/> Certain documents cited</li> <li>VII   <input checked="" type="checkbox"/> Certain defects in the international application</li> <li>VIII   <input checked="" type="checkbox"/> Certain observations on the international application</li> </ul>		

Data of submission of the demand 29/07/1998	Date of completion of this report 21.04.99
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. (+49-89) 2399-0 Tx. 523656 epmu d Fax: (+49-89) 2399-4465	Authorized officer Aullo Navarro, A Telephone No. (+49-89) 2399 2267 

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**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-57                   as originally filed

**Claims, No.:**

1-56                   as received on                   05/02/1999 with letter of                   04/02/1999

**Drawings, sheets:**

1/5-5/5               as originally filed

2. The amendments have resulted in the cancellation of:

- the description,      pages:  
 the claims,           Nos.:  
 the drawings,         sheets:

3.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- the entire international application.  
 claims Nos. 1-56 (no detailed examination possible).

because:

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- the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

- the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 1-56 do not permit to determine the extent of the examination, and the claims are so unclear that no meaningful opinion could be formed (*specify*):

**see separate sheet**

- the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- no international search report has been established for the said claims Nos. .

**IV. Lack of unity of invention**

1. In response to the invitation to restrict or pay additional fees the applicant has:

- restricted the claims.
- paid additional fees.
- paid additional fees under protest.
- neither restricted nor paid additional fees.

2.  This Authority found that the requirement of unity of invention is not complied and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- complied with.
- not complied with for the following reasons:

**see separate sheet**

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- all parts.
- the parts relating to claims Nos. 1-56 (although not in detail ,*see separate sheet III*).

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims 1-56
	No:	Claims
Inventive step (IS)	Yes:	Claims
	No:	Claims 1-56
Industrial applicability (IA)	Yes:	Claims 1-56
	No:	Claims

**2. Citations and explanations**

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

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**III. Non-establishment of opinion:**

1. Given the number of clarity problems (see Section VIII below), a detailed examination as to novelty and inventive step is not possible. However, as far as the claims can be understood with the help of the description, some general comments are given in Section V below, based on the documents cited in the International Search Report.

**IV. Lack of unity:**

1. The International Preliminary Examining Authority agrees with the objection put forward by the International Search Authority that the application does not comply with the requirements of unity of invention as set forth in the PCT regulations (Article 34(3), Rule 68(2) PCT). Moreover, in addition to the two inventions originally identified in the International Search Report, the newly filed system and method independent claims originally relating to the first invention (Claims 1 and 43) are now claimed in a way such that those independent claims do not share a single general inventive concept expressed in terms of the same or corresponding special technical features (i.e., characterising features) which is required by Rule 13.2 PCT, therefore resulting in two separate inventions which, together with the one corresponding to the second invention originally identified, now result in a total of three inventions being claimed within the present application.

The separate inventions included in the present application are thus:

- 1) System for determining a local program source based on the output of a correlator (Claims 1-42).
- 2) Method for determining a program source which employs a non-intrusive sensor, wherein the determination is repeated for different channels until the source is identified (Claims 43-45).
- 3) System for determining an operating mode of a recording/playing device (Claims 46-56)

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Their only common features are represented by general features, such as tuning to program signals and acquiring and comparing signals, these features relating merely to the field of application of both inventions, namely that of monitoring viewing habits within a household provided with a television receiver. However, those general concepts are neither new, nor inventive, as shown by a number of the documents cited in the Search Report, as well as by the prior art originally discussed in the description. Thus, the requirement of unity (Rule 13.1 PCT) is not met.

Moreover, the three inventions represent different solutions to different technical problems associated with each of the above-identified groups of claims (in the case of the first and second invention, detection of a signal source supplying a program signal, in order to distinguish, for audience monitoring purposes, the use of the TV set in conjunction with signal sources local to the household, such as home computers or videogame consoles, from its use when tuned to broadcast programs, whereby two separate solutions are proposed by the first and the second inventions; in the case of the third invention, avoidance -also within the context of audience monitoring- of double-counting for VCR-related TV-viewing, in respect of e.g. recording and playback modes associated with the same TV program), which are attained through different technical features. Hence, these inventions lack the technical relationship expressed in terms of the same or corresponding special technical features which is required by Rule 13.2 PCT.

Thus, no single general inventive concept links these three inventions.

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**V. Statement under Article 35(2) PCT:**

Reference is made to the following documents:

- D1: WO-A-95 12278
- D2: WO-A-88 10540
- D3: WO-A-93 22875
- D4: EP-A-0 703 683
- D5: EP-A-0 161 512
- D6: EP-A-0 195 639

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D7: US-A-4-633-302

D8: US-A-4 622 583

Documents D1 and D7 have been cited in the International Application.

1. Although a detailed examination is not practicable, it is considered that the subject-matter of the **first and second inventions** would be derivable from any one of documents D1 to D4 (see the passages cited in the International Search Report), also disclosing systems and methods for identifying a signal source supplying a program signal, based on the extraction and comparison of signatures and the reading of ancillary codes.

It is considered that even if features taken from the description or the dependent claims, such as the possibility that one of the signal sources be located in the monitored household, had been added to the independent claims representing the first and second inventions, those features would not have added anything of inventive significance, since it would become apparent to a skilled person that the systems and methods known from D1 to D4 are applicable to any signal sources, local or remote to the household.

The argument that the first and second inventions are aimed at identifying a local program source, while the teachings of the cited documents are aimed at identifying a broadcast program, could be accepted in support of the novelty of Claims 1-45. However, novelty has not been questioned in the course of this preliminary examination. Instead, an objection of lack of inventive step has been raised because, as indicated above, it would become apparent to a skilled person that the teachings of documents D1 to D4 are applicable to any program, irrespective of whether its source is local or remote, such that it would be obvious to employ those known techniques to identify programs from a local source, as well.

2. Likewise, it is considered that the **second invention** would be anticipated by the features disclosed in e.g. D5 (see in particular page 4, second paragraph - page 5, first paragraph) or D6 (see the passages cited in the International Search

Report), which also relate to systems permitting to determine the operating mode of a VCR. Any minor differences that might have been argued (e.g., relating to particular choice of signals or criteria to determine each of the possible operating modes) would have represented no more than a particular choice among the plural possibilities within the normal competence of a skilled person in an exercise of normal design freedom, it being not possible to derive a technical contribution which could have supported an inventive step from such minor distinguishing details.

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3. It is thus considered that the subject-matter of present Claims 1 to 56 does not involve an inventive step (Article 33(3) PCT), and therefore the present application does not meet the requirements of Article 33(1) PCT.
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**VII. Certain defects:**

1. The cited documents D2 to D4 (in the case of the first and second inventions) or D5, D6 and D8 (third invention) should have been acknowledged and briefly discussed in the opening part of the description (Rule 5.1(a)(ii) PCT), in addition to D1 and D7, so as to put each invention into the proper perspective.
  2. The statement of problem in the introductory part of the description should have been revised in such a way that the problem existing in the known arrangements had become apparent to the reader, as well as to have clearly indicated where the technical contribution associated with each invention lies (PCT Guidelines, II-4.4 and II-4.6).
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**VIII. Certain observations:**

1. Some of the present independent claims (e.g. Claims 1 and 46) are formulated in a way which, contrary to the requirements of Article 6 PCT, corresponds to a result to be achieved (PCT Guidelines, III-4.7), without specifying the essential

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structural-and-functional-features-which-are-necessary-to-define-the-claimed systems in accordance with the intended performance of each invention (PCT Guidelines III-4.1, III-4.3 and III-4.4).

- 1.1 This is because Claim 1 is directed to "a system for determining [a local program source]" in which means (a correlator) are provided "in order to determine the local program source", but does not define how that determination is to be carried out: it is only mentioned that a correlation is carried out in order to determine the program source, but without specifying the criteria for determining that identification.
- 1.2 Likewise, Claim 46 is directed to "a system for determining an operating mode" comprising means (a processor) "arranged to determine an operating mode" in an undefined way (only the signals to be used for that determination are mentioned, but not the conditions and criteria leading to the intended determination).
2. The objection in the above paragraph 1 is considered to be a consequence of the lack of essential features in the corresponding independent claims:
  - 2.1 In this respect, Claim 1 lacks the references to features such as the signature correlating means and the ancillary code reading means and their operation in relation to the program determination, as claimed in present Claims 2 to 8.

The corresponding method features are also missing in independent Claim 46, which merely includes vague references to steps such as "acquiring a representation of the program signal selected by the user" and "comparing ... in order to determine a difference between the representation and the reference signal", without specifying the features of that representation or of the comparison and its result (undefined "difference").

- 2.2 On the other hand, independent Claim 46 does not define the set of possible operating modes to be detected, and the signals indicating them, as defined in present Claims 47 to 56.

- 2.3 Thus, in order to meet the requirement following from Article 6 PCT taken in combination with Rule 6(3)(b) PCT that any independent claim must contain all the technical features essential to the invention, the independent claims should have included the essential features necessary to define the claimed systems and methods and their performance (PCT Guidelines III-4.1, III-4.3 and III-4.4).
3. In addition, the present claims (e.g. system claims) would have required a revision, in order to avoid the present mixture of features corresponding to different categories, which renders the claims unclear as to their category (Article 6 PCT and PCT Guidelines III-4.1). In this respect, the present formulation in the present claims of functional features as method features (e.g. verbal forms such as "correlates", "identifies", "extracts", "generates", "operates", etc.) should have been avoided by imposing limitations on the structural features associated to that claimed functionality (i.e. referring to "means for ..." or "means arranged to ..." carry[ing] out that functionality).
4. Moreover, following from the requirements of Article 6 and Rule 10.2 PCT, the terminology should be revised to ensure the necessary consistency among the claims and between these and the description (e.g. by uniformly referring to features such as "television receiver" and "videorecorder", and not use vague expressions such as "receiver" and "recording/playing device").
5. The general statement in the description from page 56, last paragraph, to page 57, line 2, suggesting that the extent of protection may be expanded in some vague and not precisely defined way, is not clear, and when used to interpret the claims, this statement renders them also unclear, contrary to Article 6 PCT (cf. also PCT Guidelines III-4.3a). This statement (or at least the clauses from "substantially" on page 56 to "which are" on page 57, line 1 and "is reserved" on page 57, line 2) should therefore be deleted.